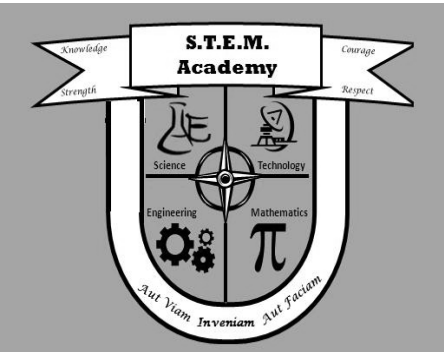


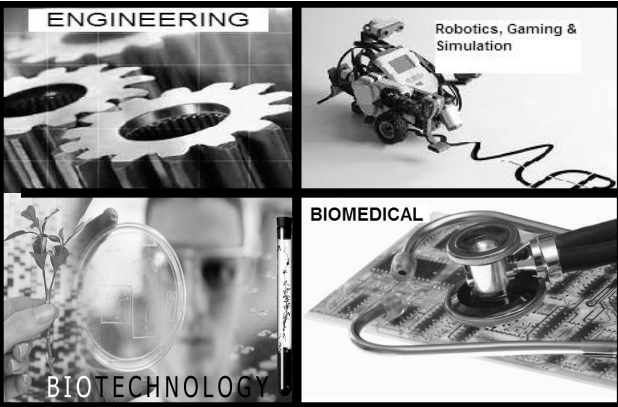
Thank you to the following organizations for partnerships with the S.T.E.M. Academy during the 2010-2011 school year.

EMBRY-RIDDLE
Aeronautical University



University High School

S.T.E.M. Academy Pathways to Success



Motto:
Aut Viam Inveniam Aut Faciam.
“I’ll either find a way or make one.”

Principal, Mr. Dennis Neal

1000 W. Rhode Island Avenue
Orange City, FL 32763

Phone: 386.968.0013

Academy Director - Jeremy Blinn
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1000 W. Rhode Island Avenue
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386.968.0013

S.T.E.M. Academy

Another Advancement In
STEM Education

Academy Mission:
The STEM Academy provides instruction giving students a strong foundation in STEM careers to compete in the global workplace.

University High School offers this special academy for students with career interests in Science, Technology, Engineering, and Mathematics or STEM. This school within-a-school provides *pathways* to a profession within four different academic programs:

- Engineering
- Plant Biotechnology
- Robotics/Gaming & Simulation
- Biomedical

Students take the STEM introductory class, Tech Issues, in 9th grade and then choose a *pathway* to concentrate on for grades 10-12. While in Tech Issues, they will experience a simulated work environment that features science labs with five academic focuses: Forensics, Genetics, Agribiotechnology, Intelligent Systems, and Engineering. In this class the STEM Academy students first experience the challenge of teamwork and engaging, rigorous curriculum. The project-based standards and protocols of the academy are taught during this year. The STEM Academy *pathways* are discussed in detail on the back of this brochure.

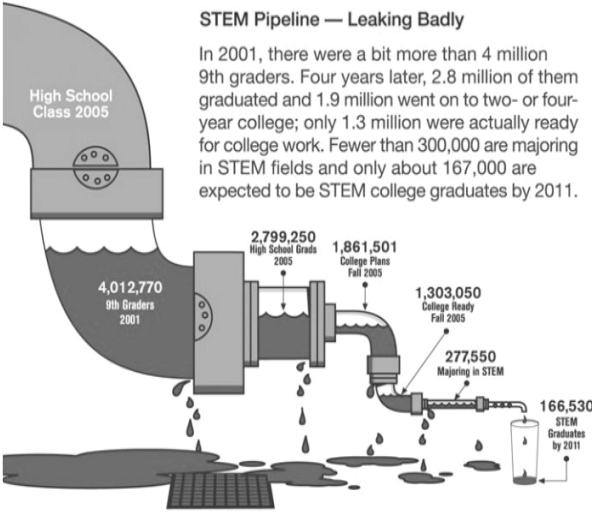
Academy Vision:
University High’s STEM Academy will send forth talented, problem solving, and innovative students.

The University High School STEM Academy students are part of the national focus on STEM. The expectations of the students are high so that they may compete in the global workplace. Through partnerships with institutes of higher learning such as Embry-Riddle Aeronautical University, and University of Central Florida the STEM Academy students will be exposed to the most current research in related STEM fields.

Academy Motto:
Aut Viam Inveniam Aut Faciam.
“I’ll either find a way or make one.”

How do I apply?
Fill out a CHOICE application by the district deadline. Indicate which *pathway* you may consider. GPA, attendance, discipline records and test results will all be factored in the acceptance of STEM students.

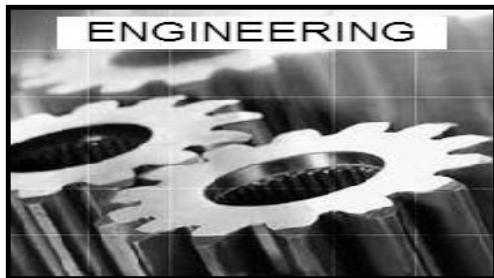
The problem nationwide:



Source: NCES Digest of Education Statistics; Science & Engineering Indicators 2008

UHS’ S.T.E.M. Academy is part of the solution

Engineering Pathway



The Project Lead the Way (PLTW) Pathway to Engineering Program is full of rigorous, relevant, reality-based activities that are hands-on and project-based. Students learn how to use the same industry-leading 3D design software that is used by companies like Intel, Lockheed Martin and Pixar.

Introduction to Engineering Design -

Teaches problem-solving skills by developing design solutions. 3D CAD models are created on computers using Autodesk Inventor.

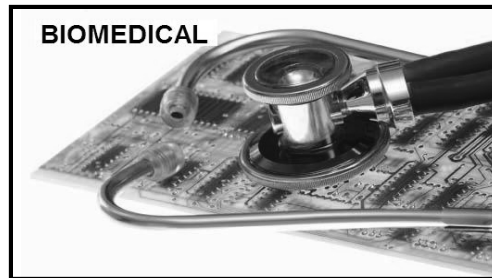
Principles of Engineering - Helps students understand the fields of engineering. The different branches are explored through hands-on activities such as building bridges, mousetrap cars, and ballistic launchers.

Digital Electronics - A course in logic that covers electronic circuits and devices. Computer simulation software is used to design and test digital circuitry before actually building circuits and devices.

Aerospace Engineering – Students are assigned challenges similar to situations faced by aerospace engineers which they solve in teams. They present their solutions to their peers and members of the professional community.

Visit www.pltw.org for more information

Biomedical Pathway



The Project Lead the Way (PLTW) Biomedical Pathway provides opportunities for students to explore the concepts of human medicine. They also explore the prevention, diagnosis and treatment of disease while working collaboratively to investigate and design innovative solutions for the health challenges of the 21st century.

Principles of the Biomedical Sciences

Students investigate the human body systems and various health conditions. This will provide an overview of all the courses in the Biomedical Pathway and scientific foundation for subsequent courses.

Human Body Systems

Students examine the interactions of body systems by designing experiments that use data acquisition software to monitor body functions.

Medical Interventions

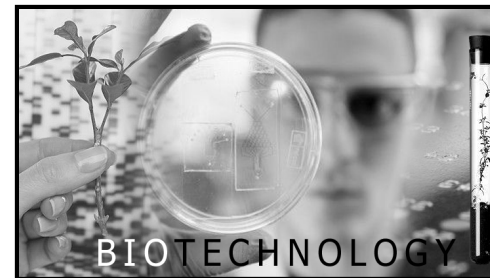
Students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family.

Biomedical Innovation

In this capstone course, students design innovative solutions for open-ended problems addressing topics such as clinical medicine, physiology, biomedical engineering and public health.

Visit www.pltw.org for more information

Plant Biotechnology Pathway



In progress

Robotics/Gaming & Simulation Pathway



In progress